Image

AF/1723

60,137-026

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Bellasalma	Group Art Unit: 1723	
Serial No.:	09/864,809	Examiner:	Sorkin, David
Filed:	24 May 2001		
Title:	***SURGE SUPPRESSOR FOR A MIXER HEAD ASSEMBLY***		

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

Dear Sir:

Subsequent to the filing of the Notice of Appeal on 18 June 2003, and in response to the 14 October 2003 notice of noncompliance, Appellant resubmits its brief. No fees are believed due. Any additional fees or credits may be charged or applied to Deposit Account No. 50-1482 in the name of Carlson, Gaskey & Olds.

REAL PARTY IN INTEREST

The real party in interest is **Masco Corporation**, the assignee of the entire right and interest in this Application.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

STATUS OF CLAIMS

Claim 1-22 and 26-31 stand finally rejected.

Claims 13, 15, and 23-25 have been canceled.

STATUS OF THE AMENDMENTS

The Examiner refused entry of the 19 May 2003 which only addressed *35 U.S.C. 112* rejections.

SUMMARY OF THE INVENTION

A multiple material molding system 10 includes a plurality of fluid material supplies 12A, 12B and 12C, which communicate with a feed assembly 14 through respective supply conduits 16A, 16B, 16C. The feed assembly 14 drives a desired quantity of fluid material from each fluid material supply 12A-12C through output conduits 18A-18C and to a respective valve assembly 20A-20C. The fluid material flows from an input port 26 through the passage 30 where the initial surge of fluid material from the feed assembly is suppressed by a plurality of sequentially activated valves 32A-32C. The fluid material passes from the passage 30 through the output port 28 and into the mix head assembly 22 (Figure 1A and 1B). The valve assemblies 20A-20C (Figure 1B) meter the initial shot of fluid material from the feed assembly 14 and assure that the initial surge of fluid materials are suppressed so that a proper ratio of each fluid material component is fed to the mix head assembly 22 from the beginning of each shot. [See Specification, ¶ 17-20.]

Each of the valves 32A-32C includes a respective opening 36A-36C. The opening 36A-36C are movable relative to the passage 30 to restrict fluid material flow. In the fully closed position (Figure 2A), the opening 36A of valve 32A is completely out of alignment with passage 30 such that no fluid material can pass while valves 36B and 36C are partially closed. The bottom seal 44 of valves 32B and 32C, maintain opening 36B, 36C at least partially in line with passage 30. In other words, a portion of opening 36B and 36C are aligned with passage 30 such that fluid can flow there through. Openings 36B and 36C are positioned such that the amount of flow through openings 36B and 36C is at most equivalent to flow through opening 36A when valve 32A is fully open. That is, flow through opening 36A when valve 32A is in its fully open position (Figure 2B) does not provide the limiting flow restriction as openings 36B and 36C are the limitation to flow. Fluid flow through passage 30 is thus no longer limited by valve 32A when valve 32A is in a fully open position (Figure 2B). [See Specification, ¶ 22-28.]

Referring to Figure 3, operation of the valve assembly 20 is illustrated for two separate fluid material components. As the feed assembly 14 forces material into the closed valve assembly 20 (Figure 2A) the fluid material pressure increase. The pressure is identified by the sensor 40 and relayed to the controller 24. The feed assembly 14 continues to force fluid material against closed valve 32A until the pressure is above a predetermine value. The predetermined value is determined in part by the viscosity of the fluid material component, its percentage relative to the other components, and the desired feed rate of the feed system. Here, the predetermined value V-1 for BPO is 50 psi. Once the pressure is above 50 psi the controller 24 releases the pressure from the actuator 38A such that valve 32A opens under the force of the spring 39 (Figure 2B). Valve 32A is opened by the spring 39 until top seal 42 contacts the chamber 34A and opening 36A is aligned with the passage 30. Fluid material may now flow through the valve assembly 20 at a rate suppressed by valves 32B and 32C. [See Specification, ¶ 29-30.]

As the feed assembly 14 continues to build toward it operational pressure, fluid material flows through the fully open valve 32A and through the partially open valves 32B and 32C. The initial pressure buildup or "surge" toward its operational pressure (100 psi) is thus partially relieved. The feed assembly 14 continues to force material into the valve assembly 20 and the pressure continues to build as valves 32B and 32C, although partially open, are still a restriction to the fluid flow. [See Specification, ¶ 31.]

Once the pressure reaches a second value V-2 (75 psi) the controller 24 releases the pressure from actuator 38B and valve 32B opens under the force of its spring 39 (Figure 2C). Valve 32B is opened such that the opening 36B is aligned with the passage 30. The restriction of valve 32B is now replaced by the lesser restriction of valve32C. As the feed assembly 14 continues to force material into the valve assembly 20, the fluid material flows through the fully open valves 32A and 32B and through the partially open valve 32C. The continued pressure buildup is thus further relieved. Finally, as the feed assembly 14 reaches a third value V-3 (100 psi) valve 32C is opened (Figure 2d) and the fluid material flow into the mix head 22 is stabilized at a steady state. By opening each valve 32A-32C at a predetermined pressure, the slope S of the pressure buildup can be readily controlled. [See Specification, ¶ 32.]

ISSUES

I. 35 U.S.C. 112 first paragraph

Is the final rejection of claims 1-22 and 26-31 under 35 U.S.C. 112, first paragraph, proper?

II. 35 U.S.C. 112 second paragraph

Is the final rejection of claims 27 and 29 under 35 U.S.C. 112, second paragraph, proper?

III. 35 U.S.C. 102(b)

a. Is the final rejection of Claims 1-7, 17-19, 26, 28 and 30-31 under 35 U.S.C. §102(b) proper as being anticipated by *Larsen (1,196,121)?*

b. Is the final rejection of Claims 1-5, 7-10, 12-21, 26, 28 and 30-31 under 35 U.S.C. §102(b) proper as being anticipated by P*aulson (887,120)?*

GROUPING OF CLAIMS

A. Claims 1, 4, 5, 7-17, 20, 21, 26, 28, 30 and 31. Claims 4, 5, 7-17, 20, 21, 26, 28, 30 and 31 all stand or fall together with claim 1 for purposes of this appeal.

B. Claims 2, 18, 20, and 31. Claims 18, 20 and 31 all stand or fall together with claim 2 for purposes of this appeal.

C. Claims 3 and 19. Claim 19 stands or falls with claim 3 for purposes of this appeal.

D. Claims 11 and 22. Claim 22 stands or falls with claim 11 for purposes of this appeal.

E. Claims 27 and 29. Claim 29 stands or falls with claim 27 for purposes of this appeal.

ARGUMENTS

I. 35 U.S.C. 112 FIRST PARAGRAPH ARGUMENTS

Claims 1-10, 12-21 and 26-31

The Rejection of Claims 1-10, 12- 21 and 26-31 Under 35 U.S.C. 112 First Paragraph Is Improper.

Claims 1-10, 12-21 and 26-31 stand rejected under 35 U.S.C. 112, first paragraph as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors at the time the application was filed, had possession of the claimed invention.

Although not entered, the 19 May 2003 Amendment amends the specification and Figures 2A-2D to more clearly indicate that each sequential valve includes an opening larger than the previous valve. *[See originally filed specification Paragraph [7]; claims 11 and 22; and Figure 3.]* No new matter has been added as such a construction was properly described in paragraph [7]. Appellant admits that this paragraph -- as noted by the Examiner -- may be somewhat contradicted elsewhere. However, when the specification and drawings are taken as a whole, the subject matter was described in such a way as to reasonably convey to one skilled in the relevant art that the inventors at the time the application was filed, had possession of the claimed invention. Any such skilled person is enabled to make and use the invention following the teaching within the specification of the application.

Claims 11 and 22

The Rejection of Claims 11 and 22 Under 35 U.S.C. 112 First Paragraph Is Improper.

Further to the arguments discussed above, Claims 11 and 22 recite the inventive construction and, considering the rejections, were apparently perfectly understood by the Examiner. Claims 11 and 22 stand rejected only under 35 U.S.C. 112. That is, these claims are separately, and immediately properly allowable if the 35 U.S.C. 112 first paragraph rejection is overcome.

II. 35 U.S.C. 112 SECOND PARAGRAPH ARGUMENTS

The Rejection of Claims 27 and 29 Under 35 U.S.C. 112 second paragraph is Improper.

Claims 27 and 29 stands finally rejected under 35 U.S.C. §112 second paragraph as being indefinite. The Examiner states that claims 27 and 29 stand rejected because of a lack of antecedent basis for "each of said valve assemblies". Although not entered, the 19 May 2003 Amendment indicates the straightforward amendment which overcomes the Examiner's rejection. Notably, the Examiner's rejection actually suggests the amendment. In any event, claims 27 and 29 are definite (though perhaps grammatically cumbersome) without the amendment as the Examiner correctly interpreted the claims and made the proper suggestion for further clarification.

The rejection of claims 27 and 29 are improper and Appellant respectfully requests that they be withdrawn.

III. 35 U.S.C. 102(B) ARGUMENTS.

a. REJECTIONS OVER THE *LARSEN* REFERENCE

Claims 1, 4, 5, 7-17, 20, 21, 26, 28, 30 and 31.

The Rejection of Claims 1, 4, 5, 7-17, 20, 21, 26, 28, 30 and 31 under 35 U.S.C. §102(b) as being anticipated by Larsen (1,196,121) is Improper.

The Examiner states in paragraph 11 of the 03-18-2003 Office Action that a "mix head" as recited in claims 1 and 17, is a broad recitation satisfied, for example, by a tube, conduit or duct. The Examiner also admits that claims 27 and 29 "appear to distinguish the "mix head" from a simple conduit or duct by requiring a plurality of circumferentially located valve assemblies communicating with the mix head"

Applicant admits that the claims may be broad, however, the usage of the term "mix head" and "mixer section" in claims 1 and 17, when read in light of the specification, are well known within the art of molding and distinguish over the broad interpretation suggested by the Examiner. While it is well settled that terms in a claim are to be given their broadest reasonable interpretation in proceedings before the PTO, this interpretation must be consistent with the specification, with the claim language

being read in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Bond*, 910 F.2d 831, 833, 15 USPQ2d 1566, 1567 (Fed Cir. 1990); *In re Sneed*, 710 f.2d 1544, 1548, 218 USPQ 385, 388 (Fed Cir. 1983). The ordinary meaning of the term "mix head" and "mixer section" in the molding art provides a definite recitation of the claimed structure which cannot be fairly interpreted as suggested by the Examiner.

The rejection of claims 1 and 17 are improper and Appellant respectfully requests that they be withdrawn.

Claims 2, 18, 20, and 31

The Rejection of Claims 2, 18, 20 and 31 under 35 U.S.C. §102(b) as being anticipated by Larsen (1,196,121) is Improper.

Claim 2 recites in pertinent part "a controller to sequentially activate said plurality of sequentially activatable valves to meter an initial flow of the fluid." The Examiner suggests that *Larsen* discloses such a controller at page 1:89-2:27. *[03-18-2003 Office Action, paragraph 12]* Appellant respectfully disagrees. *Larsen* discloses a pressure regulation valve which automatically cuts off the supply of motive fluid upon a sudden reduction of pressure in the tank below a minimum point to automatically vary the supply of motive fluid in accordance with gradually increasing tank pressure. *[Larsen page 1:18-1:30]* Importantly, *Larsen* is passive and simply balances a pressure against the spring forces. *[Larsen page 1:107-2:14]* Such a passive arrangement cannot be considered a controller," which by ordinary meaning must provide a positive controlling functionality. That is, the controller limitation must do something – not merely be. Moreover, the passive arrangement of *Larsen* simply cannot "meter an initial flow" The *Larsen* valves balances one flow (steam supply pump; page 1:54) against another (pump or receiving tank; page 1:90-1:94) and do not sequentially ***activate*** anything.

The rejection of claims 2, 18, 20, and 31 is improper and Appellant respectfully requests that it be withdrawn.

Claims 3 and 19.

The Rejection of Claims 3 and 19 under 35 U.S.C. §102(b) as being anticipated by Larsen (1,196,121) is Improper.

Claims 3 and 19 recite, in pertinent part, "wherein said controller activates each of said plurality of sequentially activatable valves in response to a predetermined pressure." As described with regard to claim 2, *Larsen* is incapable of activating the valves in response to predetermined pressure because of the passive nature of *Larsen.*

The rejection of claims 3 and 19 are improper and Appellant respectfully requests that it be withdrawn.

b. REJECTIONS OVER THE *PAULSON* REFERENCE

Claims 1, 4, 5, 7-17, 20, 21, 26, 28, 30 and 31.

The Rejection of Claims 1, 4, 5, 7-17, 20, 21, 26, 28, 30 and 31 under 35 U.S.C. §102(b) as being anticipated by Paulson (887,120) is Improper.

As with the rejection over *Larsen,* the usage of the term "mix head" and "mixer section" when read in light of the specification, distinguish over the overly broad interpretation proposed by the Examiner. Here, the Examiner suggests that the "bell pipe 30" of P*aulson* is a mix head. The bell pipe of a musical instrument -- even broadly construed --- cannot be properly considered to disclose a mix head when "mix head" is read in light of the specification of the present application. The overly broad construction of the *Larsen* "bell pipe 30" as a mix head simply cannot be sustained.

Moreover, whatever valve assembly is disclosed by the musical instrument of P*aulson*, the valve assembly thereof is not a " a plurality of ***sequentially*** activatable valves" which "selectively ***suppress*** a flow of fluid". The independently operable valves of a musical instrument in no way can be interpreted as "sequentially activatable". Such a construction cannot be sustained without ignoring the inherent operation of a musical instrument.

The rejections are improper and Appellant respectfully requests that they be withdrawn.

Claims 2, 18, 20, and 31.

The Rejection of Claim 2, 18, 20, and 31under 35 U.S.C. §102(b) as being anticipated by Paulson (887,120) is Improper.

The Examiner suggests that the *Paulson* discloses a controller provided by stems 39 and head 40 to sequentially actuate the valves. [*03-18-2003 Office Action, paragraph 13]* The valves 39, 40 may be played by a musician -- but are certainly not played in a sequential order to meter a flow. The Examiner's construction may be creative but it cannot be sustained.

The rejections are improper and Appellant respectfully requests that it be withdrawn.

Claims 3 and 19

The Rejection of Claim 3 and 19 under 35 U.S.C. §102(b) as being anticipated by Paulson (887,120) is Improper.

The Examiner suggests that Claims 3 and 19 do not further structurally limit the claimed device. Claims 3 and 19 relates how ***the controller*** activates the sequentially activatable valves in response to a predetermined pressure. The positive control action as recited in Claims 3 and 19 further indicates the unsupportable nature of the Examiner's interpretation of the *Larsen* reference. That is, under no just interpretation do the piston stems 39 and head 40 activate each of a multiple of sequentially activatable valves in relation to a predetermined pressure.

The rejections are improper and Appellant respectfully requests that it be withdrawn.

CLOSING

For the reasons set forth above, the rejection of all claims is improper and should be reversed. Appellant earnestly requests such an action.

Respectfully submitted,

CARLSON, GASKEY & OLDS, P.C.

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Dated: October 16, 2003

CERTIFICATE OF MAIL

I hereby certify that the enclosed Appeal Brief is being deposited with the United States Postal Service in triplicate as First Class Mail, postage prepaid, in an envelope addressed to Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 16th day of October, 2003.

Beth A. Beard

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CLAIM APPENDIX

1. A valve assembly for a mix head assembly of a molding system comprising:

a mix head comprising an inlet to a mixer section and an outlet from said mixer section;

an input port to a passage;

a plurality of sequentially activatable valves communicating with said passage to selectively suppress a flow of fluid through said passage; and

an output port from said passage to said mix head.

2. The assembly as recited in claim 1, further including a controller to sequentially activate said plurality of sequentially activatable valves to meter an initial flow of the fluid.

3. The assembly as recited in claim 2, wherein said controller activates each of said plurality of sequentially activatable valves in response to a predetermined pressure.

4. The assembly as recited in claim 1, wherein each of said plurality of sequentially activatable valves include a spring bias.

5. The assembly as recited in claim 1, wherein each of said plurality of sequentially activatable valves include a spring bias toward an open position.

6. The assembly as recited in claim 1, further including a pneumatic actuator to selectively activate each of said plurality of sequentially activatable valves.

7. The assembly as recited in claim 1, wherein each of said plurality of sequentially activatable valves define a longitudinal axis, each of said plurality of sequentially activatable valves providing an opening transverse to the longitudinal axis and alignable with said passage.

8. The assembly as recited in claim 1, wherein said plurality of sequentially activatable valves includes a first valve, a second valve and a third valve, each of said valves defining a longitudinal axis substantially transverse to said passage.

9. The assembly as recited in claim 8, wherein said first valve is adjacent said input port.

10. The assembly as recited in claim 8, wherein said first valve includes a first aperture, said second valve includes a second aperture, and said third valve includes a third aperture.

11. The assembly as recited in claim 10, wherein said second aperture sized to be larger than said first aperture and said third aperture sized to be larger than said second aperture.

12. The assembly as recited in claim 10, wherein said plurality of sequentially activatable valves provide an open position wherein said first aperture is aligned with said passage and said second aperture and said third aperture are partially aligned with said passage.

14. The assembly as recited in claim 10, wherein said plurality of sequentially activatable valves provide an open position wherein said first aperture is aligned with said passage, said second aperture is aligned with said passage and said third aperture is partially aligned with said passage.

16. The assembly as recited in claim 10, wherein said plurality of sequentially activatable valves provide an open position wherein said first aperture, second aperture and said third aperture are aligned with said passage.

17. A molding system comprising:

a mix head comprising an inlet to a mixer section and an outlet from said mixer section;

an input port to a passage, said input port communicating with a feed assembly;

a plurality of sequentially activatable valves each defining a longitudinal axis, each of said plurality of sequentially activatable valves include an opening transverse to the longitudinal axis and alignable with said passage to selectively suppress a flow of fluid through said passage;

a bias adjacent each of said plurality of sequentially activatable valves to bias said valve toward an open position;

an actuator to selectively activate each of said plurality of sequentially activatable valves; and

an output port from said passage, said output port communicating with said mix head.

18. The system as recited in claim 17, further including a controller to sequentially activate said plurality of sequentially activatable valves to meter an initial flow of the fluid.

19. The system as recited in claim 18, wherein said controller activates each of said plurality of sequentially activatable valves in response to a predetermined pressure.

20. The system as recited in claim 18, wherein said plurality of sequentially activatable valves includes a first valve, a second valve and a third valve, said first valve adjacent said output port.

21. The system as recited in claim 20, wherein said first valve includes a first aperture, said second valve includes a second aperture, and said third valve includes a third aperture.

22. The system as recited in claim 21, wherein said second aperture sized to be larger than said first aperture and said third aperture sized to be larger than said second aperture.

26. The assembly as recited in claim 1, wherein said plurality of sequentially activatable valves are located within a valve housing mounted adjacent said mix section.

27. The assembly as recited in claim 26, further comprising a plurality of said valve housings mounted about a circumference of said mix head, each of said valve assemblies communicating a fluid material to said mix section.

28. The system as recited in claim 17, wherein said plurality of sequentially activatable valves are located within a valve housing mounted adjacent said mix section.

29. The system as recited in claim 28, further comprising a plurality of said valve housings mounted about a circumference of said mix head, each of said valve assemblies communicating a fluid material to said mix section.

30. The assembly as recited in claim 1, wherein said plurality of sequentially activatable valves intersect said passage in a substantially perpendicular orientation.

31. The system as recited in claim 17, wherein said plurality of sequentially activatable valves intersect said passage in a substantially perpendicular orientation.

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Each of the valves 32A-32C includes a respective opening 36A-36C. The opening 36A-36C are movable relative to the passage 30 to restrict fluid material flow. In the fully closed position (Figure 2A), the opening 36A of valve 32A is completely out of alignment with passage 30 such that no fluid material can pass while valves 36B and 36C are partially closed. The bottom seal 44 of valves 32B and 32C, maintain opening 36B, 36C at least partially in line with passage 30. In other words, a portion of opening 36B and 36C are aligned with passage 30 such that fluid can flow there through. Openings 36B and 36C are positioned such that the amount of flow through openings 36B and 36C is at most equivalent to flow through opening 36A when valve 32A is fully open. That is, flow through opening 36A when valve 32A is in its fully open position (Figure 2B) does not provide the limiting flow restriction as openings 36B and 36C are the limitation to flow. Fluid flow through passage 30 is thus no longer limited by valve 32A when valve 32A is in a fully open position (Figure 2B). [See Specification, ¶ 22-28.]

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As the feed assembly 14 continues to build toward it operational pressure, fluid material flows through the fully open valve 32A and through the partially open valves 32B and 32C. The initial pressure buildup or "surge" toward its operational pressure (100 psi) is thus partially relieved. The feed assembly 14 continues to force material into the valve assembly 20 and the pressure continues to build as valves 32B and 32C, although partially open, are still a restriction to the fluid flow. [See Specification, ¶ 31.]

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ISSUES

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The Examiner states in paragraph 11 of the 03-18-2003 Office Action that a "mix head" as recited in claims 1 and 17, is a broad recitation satisfied, for example, by a tube, conduit or duct. The Examiner also admits that claims 27 and 29 "appear to distinguish the "mix head" from a simple conduit or duct by requiring a plurality of circumferentially located valve assemblies communicating with the mix head"

Applicant admits that the claims may be broad, however, the usage of the term "mix head" and "mixer section" in claims 1 and 17, when read in light of the specification, are well known within the art of molding and distinguish over the broad interpretation suggested by the Examiner. While it is well settled that terms in a claim are to be given their broadest reasonable interpretation in proceedings before the PTO, this interpretation must be consistent with the specification, with the claim language

being read in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Bond*, 910 F.2d 831, 833, 15 USPQ2d 1566, 1567 (Fed Cir. 1990); *In re Sneed*, 710 f.2d 1544, 1548, 218 USPQ 385, 388 (Fed Cir. 1983). The ordinary meaning of the term "mix head" and "mixer section" in the molding art provides a definite recitation of the claimed structure which cannot be fairly interpreted as suggested by the Examiner.

The rejection of claims 1 and 17 are improper and Appellant respectfully requests that they be withdrawn.

Claims 2, 18, 20, and 31

The Rejection of Claims 2, 18, 20 and 31 under 35 U.S.C. §102(b) as being anticipated by Larsen (1,196,121) is Improper.

Claim 2 recites in pertinent part "a controller to sequentially activate said plurality of sequentially activatable valves to meter an initial flow of the fluid." The Examiner suggests that *Larsen* discloses such a controller at page 1:89-2:27. *[03-18-2003 Office Action, paragraph 12]* Appellant respectfully disagrees. *Larsen* discloses a pressure regulation valve which automatically cuts off the supply of motive fluid upon a sudden reduction of pressure in the tank below a minimum point to automatically vary the supply of motive fluid in accordance with gradually increasing tank pressure. *[Larsen page 1:18-1:30]* Importantly, *Larsen* is passive and simply balances a pressure against the spring forces. *[Larsen page 1:107-2:14]* Such a passive arrangement cannot be considered a controller," which by ordinary meaning must provide a positive controlling functionality. That is, the controller limitation must do something – not merely be. Moreover, the passive arrangement of *Larsen* simply cannot "meter an initial flow" The *Larsen* valves balances one flow (steam supply pump; page 1:54) against another (pump or receiving tank; page 1:90-1:94) and do not sequentially ***activate*** anything.

The rejection of claims 2, 18, 20, and 31 is improper and Appellant respectfully requests that it be withdrawn.

Claims 3 and 19.

The Rejection of Claims 3 and 19 under 35 U.S.C. §102(b) as being anticipated by Larsen (1,196,121) is Improper.

Claims 3 and 19 recite, in pertinent part, "wherein said controller activates each of said plurality of sequentially activatable valves in response to a predetermined pressure." As described with regard to claim 2, *Larsen* is incapable of activating the valves in response to predetermined pressure because of the passive nature of *Larsen.*

The rejection of claims 3 and 19 are improper and Appellant respectfully requests that it be withdrawn.

b. REJECTIONS OVER THE *PAULSON* REFERENCE

Claims 1, 4, 5, 7-17, 20, 21, 26, 28, 30 and 31.

The Rejection of Claims 1, 4, 5, 7-17, 20, 21, 26, 28, 30 and 31 under 35 U.S.C. §102(b) as being anticipated by Paulson (887,120) is Improper.

As with the rejection over *Larsen,* the usage of the term "mix head" and "mixer section" when read in light of the specification, distinguish over the overly broad interpretation proposed by the Examiner. Here, the Examiner suggests that the "bell pipe 30" of P*aulson* is a mix head. The bell pipe of a musical instrument -- even broadly construed --- cannot be properly considered to disclose a mix head when "mix head" is read in light of the specification of the present application. The overly broad construction of the *Larsen* "bell pipe 30" as a mix head simply cannot be sustained.

Moreover, whatever valve assembly is disclosed by the musical instrument of P*aulson*, the valve assembly thereof is not a " a plurality of ***sequentially*** activatable valves" which "selectively ***suppress*** a flow of fluid". The independently operable valves of a musical instrument in no way can be interpreted as "sequentially activatable". Such a construction cannot be sustained without ignoring the inherent operation of a musical instrument.

The rejections are improper and Appellant respectfully requests that they be withdrawn.

Claims 2, 18, 20, and 31.

The Rejection of Claim 2, 18, 20, and 31under 35 U.S.C. §102(b) as being anticipated by Paulson (887,120) is Improper.

The Examiner suggests that the *Paulson* discloses a controller provided by stems 39 and head 40 to sequentially actuate the valves. [*03-18-2003 Office Action, paragraph 13]* The valves 39, 40 may be played by a musician -- but are certainly not played in a sequential order to meter a flow. The Examiner's construction may be creative but it cannot be sustained.

The rejections are improper and Appellant respectfully requests that it be withdrawn.

Claims 3 and 19

The Rejection of Claim 3 and 19 under 35 U.S.C. §102(b) as being anticipated by Paulson (887,120) is Improper.

The Examiner suggests that Claims 3 and 19 do not further structurally limit the claimed device. Claims 3 and 19 relates how ***the controller*** activates the sequentially activatable valves in response to a predetermined pressure. The positive control action as recited in Claims 3 and 19 further indicates the unsupportable nature of the Examiner's interpretation of the *Larsen* reference. That is, under no just interpretation do the piston stems 39 and head 40 activate each of a multiple of sequentially activatable valves in relation to a predetermined pressure.

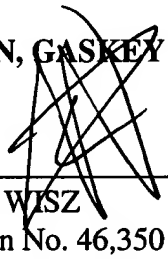
The rejections are improper and Appellant respectfully requests that it be withdrawn.

CLOSING

For the reasons set forth above, the rejection of all claims is improper and should be reversed. Appellant earnestly requests such an action.

Respectfully submitted,

CARLSON, GASKEY & OLDS, P.C.



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CERTIFICATE OF MAIL

I hereby certify that the enclosed Appeal Brief is being deposited with the United States Postal Service in triplicate as First Class Mail, postage prepaid, in an envelope addressed to Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 16th day of October, 2003.

Beth A. Beard

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CLAIM APPENDIX

1. A valve assembly for a mix head assembly of a molding system comprising:

a mix head comprising an inlet to a mixer section and an outlet from said mixer section;

an input port to a passage;

a plurality of sequentially activatable valves communicating with said passage to selectively suppress a flow of fluid through said passage; and

an output port from said passage to said mix head.

2. The assembly as recited in claim 1, further including a controller to sequentially activate said plurality of sequentially activatable valves to meter an initial flow of the fluid.

3. The assembly as recited in claim 2, wherein said controller activates each of said plurality of sequentially activatable valves in response to a predetermined pressure.

4. The assembly as recited in claim 1, wherein each of said plurality of sequentially activatable valves include a spring bias.

5. The assembly as recited in claim 1, wherein each of said plurality of sequentially activatable valves include a spring bias toward an open position.

6. The assembly as recited in claim 1, further including a pneumatic actuator to selectively activate each of said plurality of sequentially activatable valves.

7. The assembly as recited in claim 1, wherein each of said plurality of sequentially activatable valves define a longitudinal axis, each of said plurality of sequentially activatable valves providing an opening transverse to the longitudinal axis and alignable with said passage.

8. The assembly as recited in claim 1, wherein said plurality of sequentially activatable valves includes a first valve, a second valve and a third valve, each of said valves defining a longitudinal axis substantially transverse to said passage.

9. The assembly as recited in claim 8, wherein said first valve is adjacent said input port.

10. The assembly as recited in claim 8, wherein said first valve includes a first aperture, said second valve includes a second aperture, and said third valve includes a third aperture.

11. The assembly as recited in claim 10, wherein said second aperture sized to be larger than said first aperture and said third aperture sized to be larger than said second aperture.

12. The assembly as recited in claim 10, wherein said plurality of sequentially activatable valves provide an open position wherein said first aperture is aligned with said passage and said second aperture and said third aperture are partially aligned with said passage.

14. The assembly as recited in claim 10, wherein said plurality of sequentially activatable valves provide an open position wherein said first aperture is aligned with said passage, said second aperture is aligned with said passage and said third aperture is partially aligned with said passage.

16. The assembly as recited in claim 10, wherein said plurality of sequentially activatable valves provide an open position wherein said first aperture, second aperture and said third aperture are aligned with said passage.

17. A molding system comprising:

a mix head comprising an inlet to a mixer section and an outlet from said mixer section;

an input port to a passage, said input port communicating with a feed assembly;

a plurality of sequentially activatable valves each defining a longitudinal axis, each of said plurality of sequentially activatable valves include an opening transverse to the longitudinal axis and alignable with said passage to selectively suppress a flow of fluid through said passage;

a bias adjacent each of said plurality of sequentially activatable valves to bias said valve toward an open position;

an actuator to selectively activate each of said plurality of sequentially activatable valves; and

an output port from said passage, said output port communicating with said mix head.

18. The system as recited in claim 17, further including a controller to sequentially activate said plurality of sequentially activatable valves to meter an initial flow of the fluid.

19. The system as recited in claim 18, wherein said controller activates each of said plurality of sequentially activatable valves in response to a predetermined pressure.

20. The system as recited in claim 18, wherein said plurality of sequentially activatable valves includes a first valve, a second valve and a third valve, said first valve adjacent said output port.

21. The system as recited in claim 20, wherein said first valve includes a first aperture, said second valve includes a second aperture, and said third valve includes a third aperture.

22. The system as recited in claim 21, wherein said second aperture sized to be larger than said first aperture and said third aperture sized to be larger than said second aperture.

26. The assembly as recited in claim 1, wherein said plurality of sequentially activatable valves are located within a valve housing mounted adjacent said mix section.

27. The assembly as recited in claim 26, further comprising a plurality of said valve housings mounted about a circumference of said mix head, each of said valve assemblies communicating a fluid material to said mix section.

28. The system as recited in claim 17, wherein said plurality of sequentially activatable valves are located within a valve housing mounted adjacent said mix section.

29. The system as recited in claim 28, further comprising a plurality of said valve housings mounted about a circumference of said mix head, each of said valve assemblies communicating a fluid material to said mix section.

30. The assembly as recited in claim 1, wherein said plurality of sequentially activatable valves intersect said passage in a substantially perpendicular orientation.

31. The system as recited in claim 17, wherein said plurality of sequentially activatable valves intersect said passage in a substantially perpendicular orientation.